

AMENDMENTS TO THE CLAIMS

The listing of claims below replaces all prior versions of claims in the application.

Listing of claims:

1. (Currently Amended): An actuator comprising:

a hollow track member having a slit extending in an axial direction thereof and having a first length extending in the axial direction;

a movable member disposed inside the track member to be movable along the track member and having a second length extending in the axial direction, wherein the second length is shorter than the first length; and

a drive mechanism for moving the movable member along the axial direction of the track member,

wherein the track member has, in a section perpendicular to the axial direction of the track member, a guide portion for guiding movement of the movable member and at least two extensions opposing to each other, each of the extensions extending from the guide portion so as to cover the movable member,

wherein the slit is formed between the opposing extensions,

a width of the slit of the track member is narrower than a width of the movable member,

wherein an entire exposed outer periphery of the track member has a substantially circular-arc shape in the section,

wherein an inner periphery of the track member has a substantially circular-arc shape.

wherein an outer periphery of the movable member has a substantially polygon shape in the section,

wherein the track member is formed with a plurality of rolling member rolling grooves extending in the axial direction thereof as the guide portion, the movable member is formed with a plurality of loaded rolling member rolling grooves opposing to the rolling member rolling grooves, respectively, and the movable member has two [[both]] side surfaces to each of which two rows of the loaded rolling member rolling grooves are formed, and a number of rolling members are interposed between the rolling member rolling grooves of the track member and the opposing loaded rolling member rolling grooves of the movable member, respectively, to be rollable therebetween,

wherein the two rows of the loaded rolling member rolling grooves extend in the axial direction of the track member, and

wherein a first row of the two rows of the loaded rolling member rolling grooves is positioned in vertical direction with respect to a second row of the two rows of the loaded rolling member rolling grooves.

2. (Previously Presented) The actuator according to claim 1, wherein the slit is formed at only one portion in a circumferential direction of the track member in a section perpendicular to the axial direction of the track member.

3-4. (Cancelled)

5. (Previously Presented) The actuator according to claim 1 or 2, wherein the track member is provided with a cover member expandable and contractable in the axial direction of the track member so as to entirely cover the track member in the section perpendicular to the axial direction of the track member, and a portion of the movable member projecting over the slit of the track member penetrates the cover member.

6. (Currently Amended): An actuator comprising:

a hollow track member having a slit extending in an axial direction thereof and having a first length extending in the axial direction;

a movable member disposed inside the track member to be movable along the track member and having a second length extending in the axial direction, wherein the second length is shorter than the first length; and

a drive mechanism for moving the movable member along the axial direction of the track member,

wherein an entire exposed outer periphery of the track member has a substantially circular-arc shape in a section perpendicular to the axial direction of the track member,

wherein an inner periphery of the track member has a substantially circular-arc shape,

wherein an outer periphery of the movable member has a substantially polygon shape in the section,

wherein the track member is formed with a plurality of rolling member rolling grooves extending in the axial direction thereof as the guide portion, the movable member is formed with a plurality of loaded rolling member rolling grooves opposing to the rolling member rolling grooves, respectively, and the movable member has two [[both]] side surfaces to each of which two rows of the loaded rolling member rolling grooves are formed, and a number of rolling members are interposed between the rolling member rolling grooves of the track member and the opposing loaded rolling member rolling grooves of the movable member, respectively, to be rollable therebetween,

wherein the two rows of the loaded rolling member rolling grooves extend in the axial direction of the track member, and

wherein a first row of the two rows of the loaded rolling member rolling grooves is positioned in vertical direction with respect to a second row of the two rows of the loaded rolling member rolling grooves.

7. (Original) The actuator according to claim 6, wherein the drive mechanism is provided with a screw portion formed to the movable member and a screw shaft to be screw engaged with the screw portion, the screw shaft penetrating the movable member, the screw shaft has a center line coincident with a center line of an output shaft of a drive source rotating the screw shaft, and the drive source has an outer substantially circular shape in a section perpendicular to the axial direction of the track member.

8. (Currently Amended): A motion guide apparatus comprising:

a hollow track member having a slit extending in an axial direction thereof and having a first length extending in the axial direction; and

a movable member disposed inside the track member to be movable along the track member and having a second length extending in the axial direction, wherein the second length is shorter than the first length,

wherein the track member has, in a section perpendicular to the axial direction of the track member, a guide portion for guiding movement of the movable member and an extension extending from the guide portion so as to cover the movable member, and a width of the slit of the track member formed between the opposed extensions is narrower than a width of the movable member,

wherein an entire exposed outer periphery of the track member has a substantially circular-arc shape in the section,

wherein an inner periphery of the track member has a substantially circular-arc shape,

wherein an outer periphery of the movable member has a substantially polygon shape in the section,

wherein the track member is formed with a plurality of rolling member rolling grooves extending in the axial direction thereof as the guide portion, the movable member is formed with a plurality of loaded rolling member rolling grooves opposing to the rolling member rolling grooves, respectively, and the movable member has two [[both]] side surfaces to each of which two rows of the loaded rolling member rolling grooves are formed, and a number of rolling

members are interposed between the rolling member rolling grooves of the track member and the opposing loaded rolling member rolling grooves of the movable member, respectively, to be rollable therebetween,

wherein the two rows of the loaded rolling member rolling grooves extend in the axial direction of the track member, and

wherein a first row of the two rows of the loaded rolling member rolling grooves is positioned in vertical direction with respect to a second row of the two rows of the loaded rolling member rolling grooves.